



Technical University of Mombasa
Faculty of Applied and Health Sciences

DEPARTMENT OF ENVIRONMENT AND HEALTH SCIENCE
CERTIFICATE IN COMMUNITY HEALTH AND HIV MANAGEMENT
(CCH 12S)

AAB 1105: GENERAL MICROBIOLOGY

SPECIAL/SUPPLEMENTARY: EXAMINATIONS

SERIES: February 2013

TIME: 2 HOURS

INSTRUCTIONS:

You should have the following for this paper

- *Answer booklet*

This paper consists of **FIVE** questions.

Answer Question **ONE (compulsory)** and any other **TWO** questions

This paper consists of 2 PRINTED pages

Question ONE

- a) Define the following terms
 - (i) Sterilization
 - (ii) Culture media
 - (iii) Antisepsis

(3marks)
- b) Name atleast FIVE components of a microscope **(5marks)**
- c) State the FOUR FIVE components of a microscope **(5marks)**
- d) State the FOUR morphological classifications of viruses. **(4marks)**
- e) List at least SIX differences between prokaryotes and eukaryotes. **(6marks)**
- f) Highlight the reasons why bacteria's stain either grain +Ve or Gram -Ve **(4marks)**
- g) Identify at least FOUR disadvantages of using an oven for sterilization **(4marks)**
- h) Highlight FOUR mechanisms adapted by microorganisms to avoid phagocytosis **(4marks)**

Question TWO

- a) Discuss at least FOUR types of culture medias in microbiology **(12marks)**
- b) List atleast SIX factors affecting growth of microorganisms **(3marks)**

Question THREE

- a) Explain atleast FIVE methods that can be used to assess the growth of microorganisms **(10marks)**
- b) Highlight FIVE importance of microbiology in the modern world **(5marks)**

Question FOUR

- a) Name FOUR infections caused by members of the genus streptococcus. **(4marks)**
- b) Define the term bacteriophage and explain how they affect bacterias **(11marks)**

Question FIVE

- a) Briefly discuss the THREE sexual processes in bacterias. **(9marks)**
- b) Indicate the functions of the following eukaryotic cellular organelles.
 - (i) Mitochondrion
 - (ii) Ribosome's
 - (iii) DNA

(6marks)